AMENDMENTS TO THE ABSTRACT

Kindly replace the abstract with the following amended paragraph:

A prosthetic device is provided for treatment of an aortic valve, having a compressed state for transarterial delivery and being expandable to an expanded state for implantation. The device includes an expandable support implantable in the expanded state of the prosthetic device in an aortic annulus, and an inner envelope having an upstream portion that lines the inner surface of the support, and a downstream portion which, when the prosthetic device is in the expanded state, extends into an aorta and defines a diverging conical section having a diameter that gradually increases from an upstream end of the section to a downstream end of the section. The section is configured to produce, during systole, a non-turbulent blood flow into the aorta with pressure recovery at the downstream end of the section. Other embodiments are also described. ~~Prosthetic devices as described for use in the treatment of aortic stenosis in the aortic valve of a patient's heart, the prosthetic device having a compressed state for transarterial delivery and being expandable to an expanded state for implantation. The prosthetic device includes an expandable metal base constructed so as to be implantable in the expanded state of the prosthetic device in the aortic annulus of the aortic valve; and an inner envelope lining the inner surface of the metal base. The inner envelope, in the expanded state of the prosthetic device, extends into the aorta and is of a diverging conical configuration, in which its diameter gradually increases from its proximal end within the aortic annulus to its distal end extending into the aorta, such as to produce, during systole, a non-turbulent blood flow into the aorta with pressure recovery at the distal end of the inner envelope. Preferably, the distal end includes a prosthetic valve which is also concurrently implanted, but such a prosthetic valve may be implanted separately in the aorta. Also described are preferred methods of implanting such prosthetic devices.~~